

Title (en)
METHODS AND SYSTEMS FOR GENERATING END-TO-END MODEL TO ESTIMATE 3-DIMENSIONAL(3-D) POSE OF OBJECT

Title (de)
VERFAHREN UND SYSTEME ZUR ERZEUGUNG EINES END-ZU-END-MODELLS ZUR SCHÄTZUNG DER DREIDIMENSIONALEN LAGE EINES OBJEKTS

Title (fr)
PROCÉDÉS ET SYSTÈMES DE GÉNÉRATION DE MODÈLE DE BOUT EN BOUT POUR ESTIMER LA POSE TRIDIMENSIONNELLE (3-D) D'OBJET

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Application
EP 21211210 A 20211130

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Abstract (en)
The present disclosure herein provides methods and systems that solves the technical problems of generating an efficient, accurate and light-weight 3-Dimensional (3-D) pose estimation framework for estimating the 3-D pose of an object present in an image used for the 3-dimensional (3D) model registration using deep learning, by training a composite network model with both shape features and image features of the object. The composite network model includes a graph neural network (GNN) for capturing the shape features of the object and a convolution neural network (CNN) for capturing the image features of the object. The graph neural network (GNN) utilizes the local neighbourhood information through the image features of the object and at the same time maintaining global shape property through the shape features of the object, to estimate the 3-D pose of the object.

IPC 8 full level
G06T 7/73 (2017.01); **G06K 9/62** (2022.01)

CPC (source: EP US)
G06T 7/55 (2017.01 - US); **G06T 7/75** (2017.01 - EP US); **G06V 10/426** (2022.01 - EP); **G06V 10/82** (2022.01 - EP); **G06V 20/64** (2022.01 - EP); **G06T 2207/10024** (2013.01 - EP US); **G06T 2207/20081** (2013.01 - EP US); **G06T 2207/20084** (2013.01 - EP US)

Citation (applicant)

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Citation (search report)

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